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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/935,092	08/22/2001	Harry Tang	BELL-0099/00164 CIP	2242
49584	7590	07/11/2006	EXAMINER	
LEE & HAYES, PLLC 421 W. RIVERSIDE AVE. SUITE 500 SPOKANE, WA 99201			PHUNKULH, BOB A	
			ART UNIT	PAPER NUMBER
			2616	

DATE MAILED: 07/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 09/935,092	Applicant(s) TANG, HARRY	
	Examiner Bob A. Phunkulh	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☒ Claim(s) 35 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 April 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

The drawings are objected to because the drawings contain corrected handwritten letters are not well defined and clearly legible. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory

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obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 7, 9-10 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,873,628.

Although the conflicting claims are not identical, they are not patentably distinct from each other because elimination of an element and its function provides no patentable difference. Claims 1, 7, 9-10 are encompassed by claim 1 of U.S. Patent No.

6,873,628. It is well settled that elimination of elements and their function is considered to be obvious to one of ordinary skill in the art. *In re Karlson*, 153 USPQ 184 (CCPA 1963).

Claims 11-14 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 2 and 3 of U.S. Patent No.

6,873,628. Although the conflicting claims are not identical, they are not patentably distinct from each other because elimination of an element and its function provides no

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patentable difference. Claims 11-14 are encompassed by claims 2 and 3 of U.S. Patent No. 6,873,628. It is well settle that elimination of elements and their function is considered to be obvious to one of ordinary skill in the art. In re Karlson, 153 USPQ 184 (CCPA 1963).

Claims 17-19 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 4-5 and 3 of U.S. Patent No. 6,873,628. Although the conflicting claims are not identical, they are not patentably distinct from each other because elimination of an element and its function provides no patentable difference. Claims 17-19 are encompassed by claims 4-5 and 3 of U.S. Patent No. 6,873,628. It is well settle that elimination of elements and their function is considered to be obvious to one of ordinary skill in the art. In re Karlson, 153 USPQ 184 (CCPA 1963).

Claim 22 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,873,628. Although the conflicting claims are not identical, they are not patentably distinct from each other because elimination of an element and its function provides no patentable difference. Claim 22 is encompassed by claim 7 of U.S. Patent No. 6,873,628. It is well settle that elimination of elements and their function is considered to be obvious to one of ordinary skill in the art. In re Karlson, 153 USPQ 184 (CCPA 1963).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2, 7-9, 11-12, 15-16, 29-34, are rejected under 35 U.S.C. 102(e) as being anticipated by Wang et al. (US 6636505), herein after Wang.

Regarding to Claim 1, Wang discloses a system to optimize resource planning for ADSL services (see Fig.2) comprising:

a network management system in communication with an ADSL network (see Fig.4: 200 (NMS); and see col.5 lines 41-47, the network 60 (ADSL network));
and

a computing application, said computing application operating on said network management system capable of allocating, tracking, and managing deterministic resource configuration variables that are used to create permanent virtual circuits on said ADSL network (Wang discloses pre provisioned connections, one or more application on the user's CPE 110 (see Fig. 4) are provided with information about the configuration of the ATM UNI on ADSL interfaces (hence, a computing application). This information preferably includes an identification of which permanent virtual circuit (PVC) serves, for example, mapping from the virtual path identifier (VPI) / virtual channel identifier (VCI) (hence, VPI/VCI are resource

configuration variables) to a service provider ID (e.g. service provider 100 in Fig.4), and the ATM quality of service (QoS) parameters of the connection to each service provider 100. In other words, the CPE 110 is configured to associate the appropriate network resources, such as the PVC and QoS parameters, with the service provider 100 that is accessible through those resources (hence, allocating, tracking and managing deterministic resource configuration variables). See col.8 lines 3-20).

Regarding claim 2, Wang discloses the deterministic resource configuration variables comprise a virtual circuit identifier configuration variable (see col.8 lines 6-9, VCI).

Regarding claim 7, Wang discloses the NMS cooperates with said ADSL network using an element management system (see col.9 line 36-55, Element Management System), said EMS capable of communicating with the ADSL network components using ADSL network component communication protocols and standards (see col.11 line 36 – col.12 line 12, DSLAM 90 and service provider 100 (network components), service profile, service object, and service object (ADSL protocols and standards)).

Regarding claim 8, Wang discloses the NMS accepts subscriber information from a service order management system for use in allocating, tracking, and managing said deterministic resource configuration variables for use when creating permanent virtual circuits on said ADSL network (see col.5 lines 30-48: the subscriber order

service from the network service provider 30).

Regarding claim 9, Wang discloses the NMS uses said deterministic configuration variables to reanimate hung permanent virtual connections (see col.11 lines 1-34: In which, Wang disclosed a software "atmf_Service Registry ATM address" that contains the VPI/VCI combination to setup and control the PVC connected from a service provider to a CPE).

Regarding claim 11, this claim is rejected for the same reasons as Claim 1 because the apparatus in Claim 1 can be used to practice the method steps of Claim 11.

Regarding claim 12, Wang discloses that the method further comprises the act of providing a computing application to operate on said NMS, said computing application creating, managing, and communicating deterministic configuration variables to cooperating ADSL network components for the provisioning of resources (See col.8 lines 3-20, VPI/VCI (configuration variables)).

Regarding claim 15, Wang disclose the step of providing said communications means further comprises the step of coupling said NMS to an element management system (EMS), said NMS cooperating with said EMS to communicate said created deterministic configuration variables to said cooperating ADSL components (see Fig.5: the operations from USR to NMS).

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Regarding claim 16, Wang discloses a computer readable storage medium comprising computer-executable instructions for instructing a computer to perform the steps recited in claim 11 (see Fig.6 and see col.26 lines 19-42: software modules and software instructions).

Regarding claim 29, Wang discloses the DSL network is an ADSL network (see col.5 lines 41-47, the network 60 (ADSL network)).

Regarding claim 30, Wang discloses the virtual connection is a virtual circuit (see col. 9 lines 7-12).

Regarding claim 31, Wang discloses the virtual circuit is a permanent virtual connection (PVC) (see col. 8 lines 3-20).

Regarding claim 32, Wang discloses the DSL network is an ADSL network (see col.5 lines 41-47, the network 60 (ADSL network)).

Regarding claim 33, Wang discloses the virtual connection is a virtual circuit (see col. 9 lines 7-12).

Regarding claim 34, Wang discloses the virtual circuit is a permanent virtual connection (PVC) (see col. 8 lines 3-20).

Claim Rejections - 35 USC § 103

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-6, 17 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang.

Regarding to Claim 3, Wang discloses all aspects of the Claim 3 as set forth in the Claims 1 and 2 above.

Wang fails to explicitly disclose an ADSL system, in which, a VCI configuration variable is calculated by a computing application using at least one algorithm, said at least one algorithm employing ADSL configuration network values to calculate said VCI configuration variable.

However, Wang discloses a preferred embodiment with suggestions using a default VCI/VPI on sub-channels as transmission medium for transmitting the provisioning data from ADSL Terminal Unit Central to ADSL Terminal Unit Remote; with the default VCI that means there was a hidden calculation in the invention of Wang to obtain such a default VCI (see col.6 lines 13-14). In addition, Wang discloses one or more application on user's CPE, which are provided with information about the configuration of ATM user network interface on the ADSL interface, and this information preferably includes a VCI variable via a permanent virtual connection (PVC) (see col.8 lines 3-10). Furthermore, Wang discloses a Table that lists the available services profile after ADSL provisioning. In

which, the service profile such as VPI/VCI are stored in the ATU-R (see co1.25 lines 39-54).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide such at least one algorithm employing ADSL configuration network values to calculate the VCI configuration variable throughout the default VCI and one or more application on user's CPE as well as the storing Table of Wang so that a connection between an ISP and CPE can be installed properly, the motivation being to make Wang more efficient.

Regarding to Claim 4, Wang further discloses that the ADSL network values comprise any of the following: port position of cooperating remote access multiplexers of said ADSL network, the port position of central office digital subscriber line access multiplexer of said ADSL network, the connection position of said cooperating remote access multiplexers on said ADSL, and an ADSL network capacity parameter (see col.12 lines 1-12: local port identifier, local DSLAM identifier, service list). It would have been obvious for the same reason as set forth in Claim 3.

Regarding to Claim 5, Wang further discloses that the ADSL network capacity parameter is determined from the range of allowable VCI values that can be allocated on the ADSL network at any one given time (see co1.23 line 51-c4: the number of VPI/VCI and PVC fields are variables and depending on provisioned PVCs). It would have been obvious for the same reason as set forth in Claim 3.

Regarding to Claim 6, Wang discloses all aspects of the Claim 6 as set forth in the Claims 1-5 above. Wang fails to explicitly disclose the ADSL network capacity parameter is determined using VCI values in a range from 33 to 1023.

However, Wang disclosed the length (number of bits) for both VPI and VCI is 24 bits (see col.11 line 66); and furthermore, Wang specified the field of VCI can be varied from 10 bits to 27 bits. With these 10 bits, Wang can provide the values of VCI in a range from 0-1023 as that of the instant claim. (see Table 6 in col.25 lines 42-54).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement such a range for VCI throughout the field of VCI of Wang so that a port that utilizes any appropriate VCI value can be used to make a connection between an ISP and CPE, the motivation being to maximize availability and serviceability.

Regarding to Claim 17, Wang discloses an ADSL network comprising a network management system (see Fig.5: NMS), an element management system (see Fig.5: EMS), at least one remote access multiplexer (see Fig.5: CPE), and at least one central office digital subscriber line access multiplexer (see Fig.5: DSLAM), a method to provision resources on said ADSL network comprising the step of:

communicating said calculated deterministic configuration variables to said ADSL network by said NMS using said EMS, said EMS being communicatively coupled to said RAM and CO DSLAM (see Fig. 5: *the operations from USR to NMS*).

Wang fails to explicitly disclose the step of calculating deterministic configuration variables by said NMS.

However, Wang discloses a preferred embodiment with suggestions using a default VCI/VPI on sub-channels as transmission medium for transmitting the provisioning data from ADSL Terminal Unit Central to ADSL Terminal Unit Remote; with the default VCI that means there was a hidden calculation in the invention of Wang to obtain such a default VCI (see col.6 lines 13-14). In addition, Wang discloses one or more application on user's CPE, which are provided with information about the configuration of ATM user network interface on the ADSL interface, and this information preferably includes a VCI variable via a permanent virtual connection (PVC) (see col.8 lines 3-10). Furthermore, Wang discloses a Table that lists the available services profile after ADSL provisioning. In which, the service profile such as VPI/VCI are stored in the ATU-R (see col.25 lines 39-54).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide such a step of calculating deterministic configuration variables by said NMS throughout the default VCI and one or more

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application on user's CPE as well as the storing Table of Wang so that a PVC between an ISP and CPE can be provisioned efficiently, the motivation being to make Wang more efficient and more reliable.

Regarding to Claim 21, a computer readable storage medium comprising computer-executable instructions for instructing a computer to perform the acts recited in claim 17 (see Fig.6 and see col.26 lines 19-42: software modules and software instructions). It would have been obvious for the same reason as set forth in Claim 17.

Allowable Subject Matter

Claim 35 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any response to this action should be mailed to:

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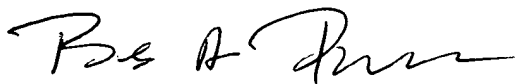
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Bob A. Phunkulh** whose telephone number is **(571) 272-3083**. The examiner can normally be reached on Monday-Tuesday from 8:00 A.M. to 5:00 P.M. (first week of the bi-week) and Monday-Friday (for second week of the bi-week).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor **Wellington Chin**, can be reach on **(571) 272-3134**. The fax phone number for this group is **(571) 273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Bob A. Phunkulh

Primary Examiner

TC 2600

Technology Division 2616

July 07, 2006

**BOB PHUNKULH
PRIMARY EXAMINER**